

Centrifugal vacuum concentrators:

LACEVAC-1C

LACEVAC4

LACEVAC6

LACEVAC7



COLO.SCIENCE • TECHNICAL SPECIFICATION

LACEVAC7

Vacuum Centrifugal Concentrator • RT+5 °C to 80 °C • 300 to 2000 rpm • Without Pump or With Built-in Pump • 5 Rotors

LACEVAC7 Vacuum Centrifugal Concentrator removes solvent from many small samples at once by combining three things: vacuum lowers the boiling point, gentle heat from RT+5 °C to 80 °C drives the evaporation, and centrifugal force at 300 to 2000 rpm keeps the liquid at the bottom of the tube, so samples do not bump or cross-contaminate. Heating, vacuum and rotation are switched on and off separately on a 7-inch touch screen. The chamber is stainless steel, the lid is transparent, and the drive is magnetic, so no shaft seal can leak. LACEVAC7 is offered in two versions: without a pump, for laboratories that already have one, or with a built-in pump for water and volatile solvents. A stronger external vacuum pump is available as an option, for a deeper vacuum. Five rotors take tubes from 1.5 mL to 100 mL and microplates.

VACUUM + HEAT + CENTRIFUGATION

RT+5 °C TO 80 °C

300 TO 2000 RPM

7-INCH TOUCH SCREEN

WITHOUT PUMP

WITH BUILT-IN PUMP

MAGNETIC DRIVE

5 ROTORS

COLD TRAP OPTION

Document type: **Technical Specification Sheet**

Product: **LACEVAC7 Vacuum Centrifugal Concentrator • without pump or with built-in pump**

SKU: **PRO7219**

Format: **A4 landscape • CORE-TECHSPEC 1.2**

LACEVAC7 PRODUCT PAGE

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 **HEATING ONLY** RT+5 °C to 80 °C



LACEVAC7 • stainless steel chamber with rotor, transparent lid, 7-inch touch screen



Five rotors • tubes 1.5 mL to 100 mL and 96-well microplates

MODEL

LACEVAC7 • PRO7219

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LACEVAC7 • technical specification

Vacuum centrifugal concentrator, RT+5 °C to 80 °C, 300 to 2000 rpm, without pump or with built-in pump, 5 rotors, optional cold trap –50 °C

RT+5 °C TO 80 °C

300–2000 RPM

WITHOUT PUMP

WITH BUILT-IN PUMP

5 ROTORS

COLD TRAP –50 °C

— Two versions, one instrument

Product Overview

Application profile

DNA and RNA: drying of precipitates and concentration of eluates.

Proteins and peptides: concentration of enzymes, hydrolysates and fractions.

HPLC and chromatography: recovery of collected fractions.

Extracts: removal of water, alcohols and acetonitrile from many tubes at once.

Plates: drying of two 96-well microplates in one run.

Key features

Control: microcomputer with 7-inch touch screen; temperature, time, speed and vacuum on one view.

Three functions: heating, vacuum and rotation are switched separately.

Speed: 300 to 2000 rpm, adjustable.

Temperature: RT+5 °C to 80 °C, accuracy ±1 °C.

Timer: 1 min to 99 h; countdown from start or from set temperature.

Pump: delayed start of the vacuum pump, so samples settle first.

End of run: automatic stop, venting and lid release, or hold under vacuum.

Build: stainless steel chamber, transparent lid, magnetic drive.

Why vacuum centrifugal concentration

No bumping: centrifugal force holds the liquid down while it boils under vacuum.

No cross-contamination: every sample stays in its own tube.

Gentle: low boiling point under vacuum, heat only as much as needed.

Dry pellet at the bottom: the sample collects where you can dissolve it again.

Many samples: up to 66 tubes or two microplates per run.

Core technical summary

Parameter	Specification
Model	LACEVAC7
Product type	Vacuum centrifugal concentrator
Speed	300 to 2000 rpm
Temperature range	RT+5 °C to 80 °C, ±1 °C
Timer	1 min to 99 h
Built-in pump	2 L/min • final vacuum –92 kPa
External pump, option	30 L/min • final vacuum 5 mbar
Rotors	5, ordered separately
Cold trap	option, –50 °C, 2 L

TEMPERATURE
RT+5 °C to 80 °C

SPEED
300–2000 rpm

VACUUM, BUILT-IN PUMP
–92 kPa

CAPACITY
up to 66 × 1.5 mL

RT = room temperature. –92 kPa is gauge pressure, about 90 mbar absolute; 5 mbar is absolute pressure. Rotors, cold trap and external vacuum pump are ordered separately. Tubes and samples are not part of the instrument. Suitability for a specific solvent and method is confirmed in the COLO.Science quotation.

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Technical Specifications

Parameter	LACEVAC7	Parameter	LACEVAC7
Speed	300 to 2000 rpm, adjustable	Chamber	stainless steel, corrosion-resistant
Temperature setting range	RT+5 °C to 80 °C	Lid	transparent
Temperature accuracy	±1 °C	Drive	magnetic, sealed chamber
Time range	1 min to 99 h	Rotors	5 types, aluminium
Display	7-inch LCD touch screen	Noise	≤ 65 dB(A)
Vacuum pump	none, or built-in, chemically resistant, 2 L/min	Supply	AC 220 V, 50 Hz
Vacuum, built-in pump	–80 to –89 kPa in work; –92 kPa final	Dimensions (L × W × H)	580 × 360 × 330 mm
Vacuum, external pump (option)	5 mbar abs., 30 L/min	Net weight	44 kg

RT = room temperature; the range starts 5 °C above the temperature of the room the instrument stands in. Vacuum values with the built-in pump are supplier data; the external pump is an option.

Rotors

Rotor	Capacity	Rotor	Capacity
No. 1	66 × 1.5 mL	No. 4	4 × 50 mL or 4 × 100 mL
No. 2	24 × 1.5 mL + 24 × 5 mL	No. 5	2 × 96-well microplate
No. 3	12 × 10 mL	—	—

The instrument is supplied without a rotor; choose the rotors for your tubes. Rotor product codes are stated in the quotation.

Two versions

Without pump: connect a vacuum pump you already have. Ask us whether your pump is suitable.

With built-in pump: PRO7219; ready to run, final vacuum –92 kPa. For water, alcohols, acetonitrile and other volatile solvents.

Option, stronger pump: VACUU-CDT30 (PRO3633), external diaphragm pump with PTFE heads, oil-free, 30 L/min, 5 mbar, for a deeper vacuum and faster drying.

Cold trap: –50 °C, 2 L; condenses the vapour before it reaches the pump. Recommended with organic solvents.

Not sure? send the solvent and the volume; we will state the version, the pump and the vacuum in the quotation.

Run sequence

- 1 • **Rotor:** fit the rotor and tighten the hold-down nut.
- 2 • **Load:** place the tubes symmetrically and close the lid until it locks.
- 3 • **Run:** set temperature, speed and time and start; the pump starts after the rotor.
- 4 • **End:** the instrument stops, vents and releases the lid, or holds the vacuum until you vent it.

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The line at a glance • centrifugal vacuum concentrators

Parameter	 LACEVAC-1C compact • external pump	 LACEVAC4 programmable • external pump	 LACEVAC6 all-in-one • built-in pump	 LACEVAC7 touch screen • without or with built-in pump
Vacuum pump	external; without or with pump	external; without or with pump	built-in, 33 L/min	without pump or built-in, 2 L/min; stronger external pump as option
Vacuum	5 mbar with pump	5 mbar with pump	≤ 13 mbar	built-in pump: -80 to -89 kPa in work, -92 kPa final (about 90 mbar); optional external pump: 5 mbar
Vacuum display / control	analogue gauge; on/off	digital; set value 0.1 to 100 mbar	digital gauge; on/off	digital value on the touch screen; on/off
Speed	1800 rpm, fixed	800 to 2000 rpm	800 to 2000 rpm	300 to 2000 rpm
Centrifugal force	380 × g	530 × g	530 × g	—
Temperature	RT+5 °C to 70 °C	RT+5 °C to 100 °C	RT+5 °C to 100 °C	RT+5 °C to 80 °C
Operation	one button, quick temperature keys	LCD, two-step time and temperature	LCD, two-step time and temperature, 30 programs	7-inch touch screen
Rotor in delivery	66 × 1.5 mL	90 × 1.5 mL	90 × 1.5 mL	none; chosen with the order
Largest tube	50 mL	100 mL	50 mL	100 mL
Microplates	—	2 × 96-well	2 × 96-well	2 × 96-well
Dimensions (L × W × H)	350 × 280 × 290 mm	481 × 370 × 294 mm	608 × 370 × 348 mm	580 × 360 × 330 mm
Weight	18 kg	28.5 kg	38 kg	44 kg
Best for	small laboratories, 1.5 mL tubes, limited space	methods that need a set vacuum; high-boiling solvents	one instrument on the bench, no separate pump	water and volatile solvents, large tubes, plates

The column of this document is highlighted. The external pump for all models is VACUU-CDT30, 30 L/min, 5 mbar. Every model can be combined with the cold trap -50 °C. Values are supplier data; rotors other than the one in delivery, pumps and cold trap are ordered separately.

Options for every model



Vacuum pump VACUU-CDT30 • PRO3633

Diaphragm pump with two PTFE heads, oil-free and maintenance-free. 30 L/min, final vacuum 5 mbar, 140 W, 10 kg. For models without a pump, and as a stronger pump for models with a built-in one.

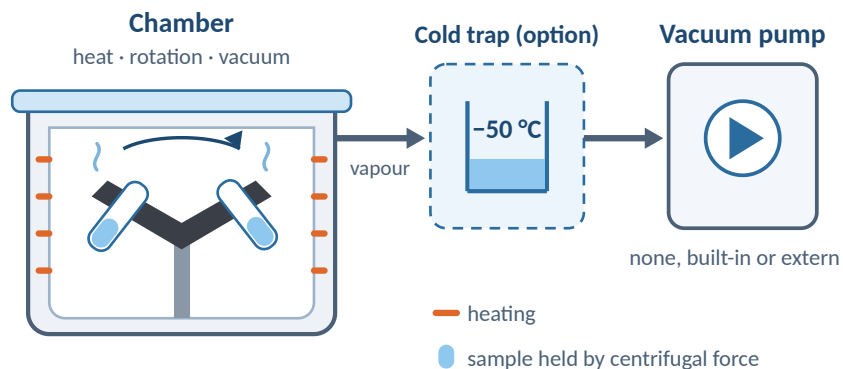


Cold trap -50 °C, 2 L

Stands between the concentrator and the pump, freezes the solvent vapour and protects the pump. Recommended with organic solvents.

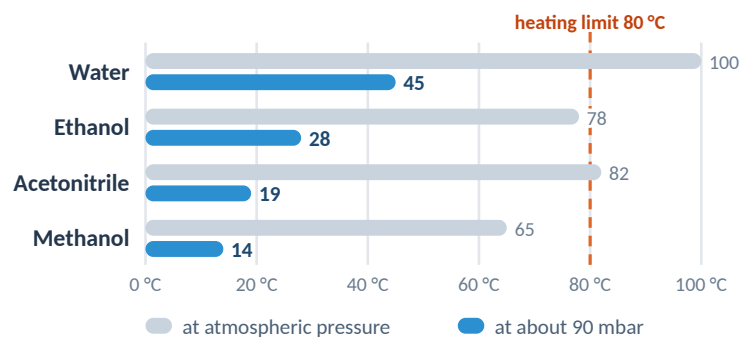
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From the chamber to the pump



Schematic. Vapour leaves the heated, rotating chamber, condenses in the cold trap if one is fitted, and the pump keeps the vacuum. The optional external pump is used when a deeper vacuum is needed.

Boiling point under vacuum



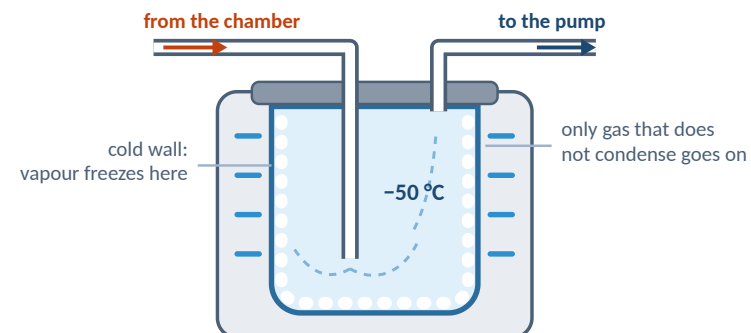
Calculated, rounded values. With the built-in pump (about 90 mbar) water boils at about 45°C instead of 100°C . Solvents that still boil above 80°C at this pressure, such as DMSO or DMF, need the optional external pump.

Chamber with rotor



Stainless steel chamber with a rotor fitted; the rotor is fixed on the spindle with a hold-down nut.

How the cold trap works



Protects the pump: solvent vapour freezes on the cold wall instead of reaching the pump.

Faster drying: vapour is removed all the time, so the pressure in the chamber stays low.

In use: switch the trap on first and start the run when it is cold; defrost and drain it when ice has built up.



LACEVAC7 with the optional cold trap -50 °C, 2 L

Ordering information

Item	Value
LACEVAC7 vacuum centrifugal concentrator, with built-in pump	PRO7219
LACEVAC7 without pump	on request
Option: external vacuum pump VACUU-CDT30, 30 L/min, 5 mbar	PRO3633
Rotors No. 1 to No. 5	ordered separately
Cold trap -50 °C, 2 L	option
Delivery	Instrument, mains cable, wrench, manual

Configuration checklist

Solvent: water and volatile solvents run on the built-in pump; high-boiling solvents need the optional external pump.

Tubes: type and number per run decide the rotor.

Temperature: within RT+5 °C to 80 °C and safe for the sample.

Cold trap: recommended with organic solvents and with an external pump.

Place of use: 580 × 360 mm footprint, 44 kg; stable, level bench.

SUPPLIER AND SUPPORT

COLO Lab Experts

Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: Send the solvent, the tube type, the volume and the number of samples per run. COLO.Science will confirm the version, the rotors and the delivery time.

QUICK CONTACT

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COLO.SCIENCE · SAMPLE CONCENTRATION SUPPORT

With or without a pump?

Send the solvent, the tube type, the volume and the number of samples per run. COLO.Science will confirm the version, the rotors and the delivery time.

Web: colo.si

Ask us:

Price and current discount, delivery time, application support and service — write to sales@colo.si or call us.

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